

# THE ANNALS

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XLIV.—*On two new Muridæ from Tasmania.* By  
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AMONG the considerable collection of Australian Muridæ in the British Museum are the two following new rats from Tasmania, for the first of which I have found it necessary to create a new genus, which I propose to call

MASTACOMYS\*, g. n.

Like *Mus*, but with the molars enormously broadened and of somewhat different pattern, and with fewer mammae.

*Mastacomys fuscus*, sp. n.

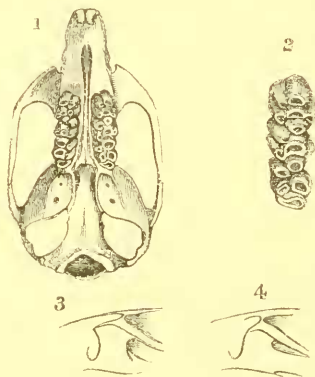
Fur extremely long and soft; general colour dark greyish brown both above and below, the hairs being bluish slate-coloured for the greater part of their length, with their tips light brown above and nearly white below. Ears coloured like the back. Tail and upperside of feet clothed with dark brown hairs, those on the former not lighter below. Skin of both feet and tail very dark-coloured.

Ears rather large; tail shorter than the head and body. Hind feet with the fifth toe reaching just to the base of the

\* μάσταξ, the chewing-organ, the jaw, from μασάομαι, to chew.  
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fourth. Sole-pads five on the fore feet and six on the hind. Mammæ only four, there being no pectoral and only two inguinal pairs; these latter both quite close to the vulva. Cæcum large, about 3 inches in length.

Skull and incisor teeth of ordinary murine proportions; but the molars most remarkably broad and heavy, the anterior ones each more than half as broad again as the palatal space between them. Their pattern also, as shown in the woodcut (fig. 2), is somewhat different from that of true *Mus*, as there are three cusps to the middle lamina of the first and the anterior lamina of the second tooth only. These third cusps,



which are external, are very small, while the internal ones are unusually large. Third molars remarkably large, as long as either of the preceding teeth. Front edge of the anterior zygoma-root (woodcut, fig. 3) markedly concave. Anterior palatine foramina very narrow, extending backwards to between the middle of the first molars. Supraorbital edges without marked ridges.

For dimensions see below.

The type and only specimen of this interesting form is an adult female in alcohol, presented to the Museum in 1852 by Mr. Ronald Gunn.

It is worthy of note that externally this rat is almost exactly similar to the next species, an animal also from Tasmania, so that an examination of the skull is needed to distinguish the two forms.

The second species is a member of the restricted genus *Mus*, and I propose to call it, on account of the velvety nature of its fur,

*Mus velutinus*, sp. n.

Fur excessively long, soft, and velvety, almost like that of a Chinchilla in texture. General colour above a peculiar yellowish olivaceous grey, the hairs, which are nearly 1 inch long, being dark slaty grey for nine tenths of their length, with their extreme tips yellow. There are also many longer black hairs intermixed with the others. Belly bluish grey, the bases of the hairs light slate-colour and the tips dirty white. Ears, feet, and tail uniformly dark brown.

Skull rather light and slender, with well-marked supra-orbital ridges. Front edge of the anterior zygoma-root slanting in all three specimens, thus differing from all other Australian rats, in which it either projects forward above or is strongly concave below (see woodcut, fig. 4).

Of this species two skins and a skeleton were presented to the Museum in 1877 by Mr. A. Simson.

*Dimensions.*

	<i>Mastacomys fuscus</i> , ♀ in alcohol.	<i>Mus velutinus</i> , adult skins.	
		a.	b.
	in.	in.	in.
Head and body . . . . .	5·60	6·30	5·25
Tail . . . . .	3·70	4·00	3·45
Hind foot . . . . .	1·22	1·12	1·11
Forearm and hand . . . . .	1·55		
Ear-conch, length . . . . .	·68	·63	
Muzzle to ear . . . . .	1·30	1·38	

*Skulls.*

	<i>Mastacomys fuscus</i> ,	<i>Mus velutinus</i> .	
	type.	Skull of b.	Of the skeleton.
Greatest length . . . . .	1·42	1·34	1·30
Breadth across zygomata . . .	·84	·71	·68
Length of lower jaw . . . . .	·98	·88	·80
Nasal bones . . . . .	·51	·52	·46
Breadth between orbits . . .	·17	·20	·21
Anterior palatine foramina . .	·30	·25	·25
Incisors to first upper molars .	·35	·37	·36
Upper molar series . . . . .	·39	·30	·29

Besides these two species, the British Museum possesses specimens of two other rats from Tasmania, namely *Mus fuscipes*, Waterh., and a species closely allied to, if not identical with, *Mus lincolatus*, Gould. All four are long-haired rats of about the same size and proportions, with very similarly coloured fur; but they are all readily distinguishable by the

characters of the skull and dentition. *Mus tasmaniensis*, Krefft \*, "a new species of land-rat discovered by Mr. George Masters on the banks of the Ouse river," is no doubt one of these four; but even if the type is found to be the same as one of the species here described, Mr. Krefft's name for it cannot stand, as no description whatever has ever been published of it.

XLV.—*Remarkable Forms of Cellepora and Palythoa from the Senegambian Coast.* By H. J. CARTER, F.R.S. &c.

[Plate XVI.]

*Cellepora senegambiensis*, n. sp. (Pl. XVI. fig. 1, a-v.)

Zoarium asteroid, many-armed, about  $2\frac{1}{3}$  inches in diameter, with a large hole at the base of the arms (Pl. XVI. fig. 1). Composition calcareous. Structure hard, firm. Colour white, spotted with greenish brown. Consisting of ten cylindrical arms, variable in form, size, length, and position, sometimes bifurcated. Built upon a depressed, turbinoid, littorine shell, over the whole of which—with the exception of the aperture, which is subcircular, about 1-3rd of an inch in its longest diameter, and still remains open (fig. 1, a)—the polyzoon has grown. Arms solid, composed throughout of an aggregate of white or colourless cells (zocœcia), heaped together irregularly in the form mentioned, mixed with others of a greenish-brown colour, which, grouped together, retain a radiating (? spiral) arrangement from the axis (which is also composed of the same coloured cells) to the surface (fig. 1, b'), where they terminate in subverruciform gentle elevations (fig. 1, b b), varying in size from 1 to 2-12ths of an inch in diameter, and disposed more or less quincuncially about the same distance apart, but chiefly collected at the extremity of the arm. Zocœcium conical and erect, or oval and recumbent (fig. 1, c c c c); orifice circular, constricted unequally, the smallest part (sinus) posteriorly (fig. 1, d d d and m), margined by a smooth, round, even rim, bordered in front by two or more tubercles (fig. 1, l), and behind by a prominent conical rostrum (fig. 1, h), against which the sinus rests more or less perpendicularly (fig. 1, i); furnished with a chitinous operculum. Surface of the cell covered with a branched anastomo-

\* Fauna of Tasmania, p. 3 (1868).